

## Appendix D. Antenna List

## 1. Table for Filed Antenna

1	Ant. Type	PIFA	PK Gain(dBi)	3.95
	Connector	IPEX	Model No.	DQ661500301
2	Ant. Type	PIFA	PK Gain(dBi)	2.11
	Connector	IPEX	Model No.	DQ661500115
3	Ant. Type	PIFA	PK Gain(dBi)	2.39
	Connector	IPEX	Model No.	AR830WIPI02A
4	Ant. Type	PIFA	PK Gain(dBi)	2.11
	Connector	IPEX	Model No.	AR320WIPI01B
5	Ant. Type	PIFA	PK Gain(dBi)	2.48
	Connector	IPEX	Model No.	ARW62WIP101G
6	Ant. Type	PIFA	PK Gain(dBi)	2.41
	Connector	IPEX	Model No.	ARUMPWIPI02
7	Ant. Type	PIFA	PK Gain(dBi)	2.32
	Connector	IPEX	Model No.	WDAN-GQMA6001-DF
8	Ant. Type	PIFA	PK Gain(dBi)	0.78
	Connector	IPEX	Model No.	WDAN-GQMA6002-DF
9	Ant. Type	PIFA	PK Gain(dBi)	3.64
	Connector	IPEX	Model No.	021020168NC3587
10	Ant. Type	PIFA	PK Gain(dBi)	3.25
	Connector	IPEX	Model No.	021020168NC3586
11	Ant. Type	PIFA	PK Gain(dBi)	0.46
	Connector	IPEX	Model No.	AAFQ5050001LK0
12	Ant. Type	PIFA	PK Gain(dBi)	0.64
	Connector	IPEX	Model No.	HFT40-IV17
13	Ant. Type	PIFA	PK Gain(dBi)	-0.62
	Connector	IPEX	Model No.	81.EE215.016.
14	Ant. Type	PIFA	PK Gain(dBi)	1.34
	Connector	IPEX	Model No.	ASAW001
15	Ant. Type	PIFA	PK Gain(dBi)	0.63
	Connector	IPEX	Model No.	B1425050G0003
16	Ant. Type	PIFA	PK Gain(dBi)	0.61
	Connector	IPEX	Model No.	ASAT001
17	Ant. Type	PIFA	PK Gain(dBi)	1.56
	Connector	IPEX	Model No.	ASAA001
18	Ant. Type	PIFA	PK Gain(dBi)	1.12
	Connector	IPEX	Model No.	HFT40
19	Ant. Type	PIFA	PK Gain(dBi)	-0.92
	Connector	IPEX	Model No.	HFT60
20	Ant. Type	PIFA	PK Gain(dBi)	2.24
	Connector	IPEX	Model No.	HTL008

21	Ant. Type	PIFA	PK Gain(dBi)	2.82
	Connector	IPEX	Model No.	HTL017
22	Ant. Type	PIFA	PK Gain(dBi)	3.45
	Connector	IPEX	Model No.	TBN001
23	Ant. Type	PIFA	PK Gain(dBi)	-1.11
	Connector	IPEX	Model No.	TBN003
24	Ant. Type	PIFA	PK Gain(dBi)	0.87
	Connector	IPEX	Model No.	TIAN01
25	Ant. Type	PIFA	PK Gain(dBi)	1.76
	Connector	IPEX	Model No.	WNC001
26	Ant. Type	PIFA	PK Gain(dBi)	1.75
	Connector	IPEX	Model No.	WNC002
27	Ant. Type	PIFA	PK Gain(dBi)	2.99
	Connector	IPEX	Model No.	JEM U40
28	Ant. Type	PIFA	PK Gain(dBi)	-0.98
	Connector	IPEX	Model No.	WGT U40
29	Ant. Type	PIFA	PK Gain(dBi)	2.53
	Connector	IPEX	Model No.	JEM U50
30	Ant. Type	PIFA	PK Gain(dBi)	0.94
	Connector	IPEX	Model No.	WGT U50
31	Ant. Type	PIFA	PK Gain(dBi)	2.29
	Connector	IPEX	Model No.	MA-8 (06-941-03)
32	Ant. Type	PIFA	PK Gain(dBi)	2.04
	Connector	IPEX	Model No.	MA-8 (50-88-03)
33	Ant. Type	PIFA	PK Gain(dBi)	0.11
	Connector	IPEX	Model No.	SA-1
34	Ant. Type	PIFA	PK Gain(dBi)	2.75
	Connector	IPEX	Model No.	WDAN-GQMA3004-DF
35	Ant. Type	PIFA	PK Gain(dBi)	0.21
	Connector	IPEX	Model No.	L45II-WLAN
36	Ant. Type	PIFA	PK Gain(dBi)	0.95
	Connector	IPEX	Model No.	L55II-ID1 & ID2
37	Ant. Type	PIFA	PK Gain(dBi)	1.15
	Connector	IPEX	Model No.	L55II-ID3
38	Ant. Type	PIFA	PK Gain(dBi)	2.14
	Connector	IPEX	Model No.	L55II-ID4
39	Ant. Type	PIFA	PK Gain(dBi)	0.95
	Connector	IPEX	Model No.	L55RI
40	Ant. Type	PIFA	PK Gain(dBi)	2.21
	Connector	IPEX	Model No.	UM700-L

41	Ant. Type	PIFA	PK Gain(dBi)	-0.19
	Connector	IPEX	Model No.	W351
42	Ant. Type	PIFA	PK Gain(dBi)	-1.18
	Connector	IPEX	Model No.	W651
43	Ant. Type	PIFA	PK Gain(dBi)	-0.35
	Connector	IPEX	Model No.	W815U11
44	Ant. Type	PIFA	PK Gain(dBi)	0.7
	Connector	IPEX	Model No.	NB0040-K
45	Ant. Type	PIFA	PK Gain(dBi)	0.8
	Connector	IPEX	Model No.	TFF-A011MPXX-361
46	Ant. Type	PIFA	PK Gain(dBi)	1.68
	Connector	IPEX	Model No.	L45
47	Ant. Type	PIFA	PK Gain(dBi)	2.83
	Connector	IPEX	Model No.	MCA50
48	Ant. Type	PIFA	PK Gain(dBi)	2.82
	Connector	IPEX	Model No.	GT1W
49	Ant. Type	PIFA	PK Gain(dBi)	0.91
	Connector	IPEX	Model No.	L390T
50	Ant. Type	PIFA	PK Gain(dBi)	-0.34
	Connector	IPEX	Model No.	TX1: SK72TWPI01 +A TX2: SK72TWPI02+A
51	Ant. Type	PIFA	PK Gain(dBi)	2.4
	Connector	IPEX	Model No.	WM-1: M02007051001 WM-2:M02007056001
52	Ant. Type	PIFA	PK Gain(dBi)	2
	Connector	IPEX	Model No.	TX1: SKM74WIGP01 +B TX2: SKM7TWMPI01 +A
53	Ant. Type	PIFA	PK Gain(dBi)	0.15
	Connector	IPEX	Model No.	M540S
54	Ant. Type	PIFA	PK Gain(dBi)	3.29
	Connector	IPEX	Model No.	TX1: PE-230050 TX2:PE-230060
55	Ant. Type	PIFA	PK Gain(dBi)	1.85
	Connector	IPEX	Model No.	TX1: PE-230080 TX2: PE-230090
56	Ant. Type	PIFA	PK Gain(dBi)	1.67
	Connector	IPEX	Model No.	M735 WM-1
57	Ant. Type	PIFA	PK Gain(dBi)	-0.66
	Connector	IPEX	Model No.	M735 WM-2

58	Ant. Type	PIFA	PK Gain(dBi)	2.7
	Connector	IPEX	Model No.	WM-1:M02007051001 WM-2: M02007051001
59	Ant. Type	PIFA	PK Gain(dBi)	2.74
	Connector	IPEX	Model No.	WM-1: M02007051001 WM-2: M02007052001
60	Ant. Type	PIFA	PK Gain(dBi)	0.42
	Connector	IPEX	Model No.	WM-1: M570TU WM-2: M570TU
61	Ant. Type	PIFA	PK Gain(dBi)	2.4
	Connector	IPEX	Model No.	M735X (WM-2)
62	Ant. Type	PIFA	PK Gain(dBi)	-0.38
	Connector	IPEX	Model No.	M735T (WM-1)
63	Ant. Type	PIFA	PK Gain(dBi)	1.2
	Connector	IPEX	Model No.	VM8
64	Ant. Type	PIFA	PK Gain(dBi)	1.2
	Connector	IPEX	Model No.	VM8D
65	Ant. Type	PIFA	PK Gain(dBi)	0.2
	Connector	IPEX	Model No.	VM9
66	Ant. Type	PIFA	PK Gain(dBi)	0.2
	Connector	IPEX	Model No.	VM9D
67	Ant. Type	PIFA	PK Gain(dBi)	1.82
	Connector	IPEX	Model No.	JAL90
68	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.87 TX 2: -2.86
	Connector	IPEX	Model No.	WDAN-TQ BD3002-DF
69	Ant. Type	PIFA	PK Gain(dBi)	TX1: -2.24 TX2: -2.41
	Connector	IPEX	Model No.	WDAN-TQ BL5002-DF
70	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.43 TX 2: -0.7
	Connector	IPEX	Model No.	WDAN-TQ TE1002-DF
71	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.42 TX 2: -0.37
	Connector	IPEX	Model No.	WDAN-TQ BU2002-DF
72	Ant. Type	PIFA	PK Gain(dBi)	2.14
	Connector	IPEX	Model No.	WDAN-TQBL1001-DF (DQ6BL100101)
73	Ant. Type	PIFA	PK Gain(dBi)	2.97
	Connector	IPEX	Model No.	WDAN-TQBL1001-DF (DQ6BL100101)
74	Ant. Type	PIFA	PK Gain(dBi)	2.74
	Connector	IPEX	Model No.	K05002000101(DQ600010100)

75	Ant. Type	PIFA	PK Gain(dBi)	0.39
	Connector	IPEX	Model No.	S79-1800A10-J36
76	Ant. Type	PIFA	PK Gain(dBi)	2.11
	Connector	IPEX	Model No.	S79-1800A30-J36
77	Ant. Type	PIFA	PK Gain(dBi)	Left: -3.30 Right: -3.04
	Connector	IPEX	Model No.	Left: 22G645000-10 Righth: 22G660020-10
78	Ant. Type	PIFA	PK Gain(dBi)	Left: 0.53 Right: -0.65
	Connector	IPEX	Model No.	Left: 22G645000-00 Righth: 22G660020-00
79	Ant. Type	PIFA	PK Gain(dBi)	Main: 1.42 Aux.: 0.53
	Connector	IPEX	Model No.	Main: 14G152153000 Aux.: 14G152153200
80	Ant. Type	PIFA	PK Gain(dBi)	Main: -0.2 Aux.: -1.79
	Connector	IPEX	Model No.	Main: APP6H-100001 Aux: APP6H-100002 Main Base : CH2P76-0199000 Aux Base : CH2P76-0199001
81	Ant. Type	PIFA	PK Gain(dBi)	Main: 1.24 Aux. 0.34
	Connector	IPEX	Model No.	Main CNA4313 788 012501B Aux: CNA4313 788 022501B Main Base : CAN4313 788 032501B Aux Base : CAN4313 788 042501B
82	Ant. Type	PIFA	PK Gain(dBi)	Main: -0.22 Aux: 2.89
	Connector	IPEX	Model No.	Main: CAN4313 812 012501B Aux: CAN4313 812 022501B
83	Ant. Type	PIFA	PK Gain(dBi)	Left: 2.96 Right: 1.23
	Connector	IPEX	Model No.	1909830-1
84	Ant. Type	PIFA	PK Gain(dBi)	TX1: 0.24 TX2: 2.13
	Connector	IPEX	Model No.	TX1: SK71LWIPI01 +A TX2: SK71LWIPI02 +A
85	Ant. Type	PIFA	PK Gain(dBi)	1.56
	Connector	IPEX	Model No.	WM-1: 6-23-7M735-020 WM-2: 6-23-7M73T-041

86	Ant. Type	PIFA	PK Gain(dBi)	2.43
	Connector	IPEX	Model No.	WM-1: 6-23-7M770-011 WM-2: 6-23-7M770-021
87	Ant. Type	PIFA	PK Gain(dBi)	2.31
	Connector	IPEX	Model No.	WM-1: 6-23-7TN70-010 WM-2: 6-23-7TN70-020
88	Ant. Type	PIFA	PK Gain(dBi)	Main: 0.52 Aux: 0.67
	Connector	IPEX	Model No.	22G643000-10
89	Ant. Type	PIFA	PK Gain(dBi)	Left: 3.46 Right :2.27
	Connector	IPEX	Model No.	Left: TGWA-L3945 Right: TGWA-R3945
90	Ant. Type	PIFA	PK Gain(dBi)	2.71
	Connector	IPEX	Model No.	90ZLARFC008A
91	Ant. Type	PIFA	PK Gain(dBi)	Left: 2.35 Right: 1.90
	Connector	IPEX	Model No.	Left: 22G600390-00 (U42) Righth: 22G600540-30 (U42)
92	Ant. Type	PIFA	PK Gain(dBi)	Left: 2.55 Right: 0.32
	Connector	IPEX	Model No.	Left: 22G600390-00 (U52) Righth: 22G600540-30 (U53)
93	Ant. Type	PIFA	PK Gain(dBi)	Left: -0.65 Right: -1.32
	Connector	IPEX	Model No.	Left: 22G600330-40 (U42) Righth: 22G600540-40 (U42)
94	Ant. Type	PIFA	PK Gain(dBi)	Left: -1.38 Right: -1.59
	Connector	IPEX	Model No.	Left: 22G600330-40 (U52) Righth: 22G600540-40 (U52)
95	Ant. Type	PIFA	PK Gain(dBi)	Main: 1.03 Aux: 0.52
	Connector	IPEX	Model No.	22G643000-10
96	Ant. Type	PIFA	PK Gain(dBi)	Main: 0.60 Aux: 0.68
	Connector	IPEX	Model No.	G10 (SPEEDTECH)
97	Ant. Type	PIFA	PK Gain(dBi)	Main: 0.36 Aux: 0.98
	Connector	IPEX	Model No.	G10 (JEM)
98	Ant. Type	PIFA	PK Gain(dBi)	2.98
	Connector	IPEX	Model No.	VY150
99	Ant. Type	PIFA	PK Gain(dBi)	2.52
	Connector	IPEX	Model No.	JAL90
100	Ant. Type	PIFA	PK Gain(dBi)	2.80
	Connector	IPEX	Model No.	N011
101	Ant. Type	PIFA	PK Gain(dBi)	Main: 0.87 Aux.: 1.94
	Connector	IPEX	Model No.	HCT01

102	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.43 TX 2: -0.7 TX 3: -0.25
	Connector	IPEX	Model No.	TX 1 & TX 2: AN-120 TX 3: AN-070
103	Ant. Type	PIFA	PK Gain(dBi)	-1.11
	Connector	IPEX	Model No.	TBN005(2040170) & TBN006(2040171)
104	Ant. Type	PIFA	PK Gain(dBi)	Main: -1.42 Aux.: -1.76
	Connector	IPEX	Model No.	Auden ZM1
105	Ant. Type	PIFA	PK Gain(dBi)	Main: -1.86 Aux.: -1.49
	Connector	IPEX	Model No.	Foxconn ZM1
106	Ant. Type	PIFA	PK Gain(dBi)	Main: -1.18 Aux.: -0.93
	Connector	IPEX	Model No.	ACON ZM1
107	Ant. Type	PIFA	PK Gain(dBi)	Main: -0.99 Aux.: -1.34
	Connector	IPEX	Model No.	Yageo ZM1
108	Ant. Type	PIFA	PK Gain(dBi)	Main: 1.31 Aux.: 0.09
	Connector	IPEX	Model No.	DQ652016100
109	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -1.4 TX 2: -2.2
	Connector	IPEX	Model No.	TX 1: AN-090-B TX 2: AN-090-A
110	Ant. Type	PIFA	PK Gain(dBi)	TX 1 (Main): 1.13 TX 2 (Aux.): 0.74
	Connector	IPEX	Model No.	DQ652015800
111	Ant. Type	PIFA	PK Gain(dBi)	TX 1: 1.8 TX 2: 0.1
	Connector	IPEX	Model No.	ON1
112	Ant. Type	PIFA	PK Gain(dBi)	Left (Main): 0.21 Right (Aux.): -0.8
	Connector	IPEX	Model No.	Left (Main): 22G600810-10 Right (Aux.): 22G600530-00
113	Ant. Type	PIFA	PK Gain(dBi)	Left (Main): 0.37 Right (Aux.): 1.15
	Connector	IPEX	Model No.	Left (Main): 22G600820-00 Right (Aux.): 22G600575-00
114	Ant. Type	PIFA	PK Gain(dBi)	Left (Main): 2.28 Right (Aux.): 2.81
	Connector	IPEX	Model No.	Left (Main): 22G600820-30 Right (Aux.): 22G600575-10
115	Ant. Type	PIFA	PK Gain(dBi)	Left : 1.68
	Connector	IPEX	Model No.	Left: 22G600750-30
116	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.87 TX 2: -2.86 TX 3: -1.27
	Connector	IPEX	Model No.	WDAN-TQ BD3001-DF
117	Ant. Type	PIFA	PK Gain(dBi)	TX 1: 2.24 TX 2: -2.41 TX 3: -0.65
	Connector	IPEX	Model No.	WDAN-TQ BL5001-DF



118	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.42 TX 2: -0.37 TX 3: -0.9
	Connector	IPEX	Model No.	WDAN-TQ BU2001-DF
119	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.43 TX 2: -0.7 TX 3: -0.25
	Connector	IPEX	Model No.	WDAN-TQ TE1001-DF
120	Ant. Type	PIFA	PK Gain(dBi)	TX 1 (Main): 2.95 TX 2 (Aux.): 1.35
	Connector	IPEX	Model No.	TX 1 (Main): 2023935-1 TX 2 (Aux.): 2023936-1
121	Ant. Type	PIFA	PK Gain(dBi)	TX 1 (Main): 1.60 TX 2 (Aux.): 0.05
	Connector	IPEX	Model No.	2023937-1
122	Ant. Type	PIFA	PK Gain(dBi)	TX 1 (Main): 1.41 TX 2 (Aux.): 1.24
	Connector	IPEX	Model No.	TX 1 (Main): 2023938-1 TX 2 (Aux.): 2023939-1
123	Ant. Type	PIFA	PK Gain(dBi)	TX 1 (Main): 1.68 TX 2 (Aux.): 0.92
	Connector	IPEX	Model No.	TX 1 (Main): 2023954-1 TX 2 (Aux.): 2023955-1
124	Ant. Type	PIFA	PK Gain(dBi)	TX 1: 2.19 TX 2: -0.33
	Connector	IPEX	Model No.	HBV07
125	Ant. Type	PIFA	PK Gain(dBi)	TX 1: 2.91 TX 2: 2.82
	Connector	IPEX	Model No.	HBV051
126	Ant. Type	PIFA	PK Gain(dBi)	TX 1: 0.27 TX 2: 0.02
	Connector	IPEX	Model No.	HBV052
127	Ant. Type	PIFA	PK Gain(dBi)	TX 1: 1.30 TX 2: 2.42
	Connector	IPEX	Model No.	HBV061
128	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -1.04 TX 2: -1.19
	Connector	IPEX	Model No.	HBV062
129	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -1.74 TX 2: 1.16
	Connector	IPEX	Model No.	HFT65
130	Ant. Type	PIFA	PK Gain(dBi)	Main: 1.19 Aux.: 0.28
	Connector	IPEX	Model No.	Main: 1131670W (22P51) Aux.: 1131945B (22P51)
131	Ant. Type	PIFA	PK Gain(dBi)	TX 1: -0.43 TX 2: -0.7
	Connector	IPEX	Model No.	WDAN-TQ
132	Ant. Type	PIFA	PK Gain(dBi)	2.05
	Connector	IPEX	Model No.	1415-00JL000
133	Ant. Type	PIFA	PK Gain(dBi)	2.40
	Connector	IPEX	Model No.	1415-00JK000

134	Ant. Type	PIFA	PK Gain(dBi)	Main: 2.31 Aux.: 1.50
	Connector	IPEX	Model No.	WNC004
135	Ant. Type	PIFA	PK Gain(dBi)	Main: 0.52 Aux.: 1.07
	Connector	IPEX	Model No.	WNC003
136	Ant. Type	PIFA	PK Gain(dBi)	Ant. 1: 2.93 Ant. 2: -0.32
	Connector	IPEX	Model No.	WGT T890M
137	Ant. Type	PIFA	PK Gain(dBi)	Right: 1.04 Left: -0.16
	Connector	IPEX	Model No.	TBF1021IP01-492 (R) TBF1021IP02-492 (L)